July/August 1990 Volume 15, Number 4

A summary of recent news stories from the University of California, San Francisco

UCSF

News for You

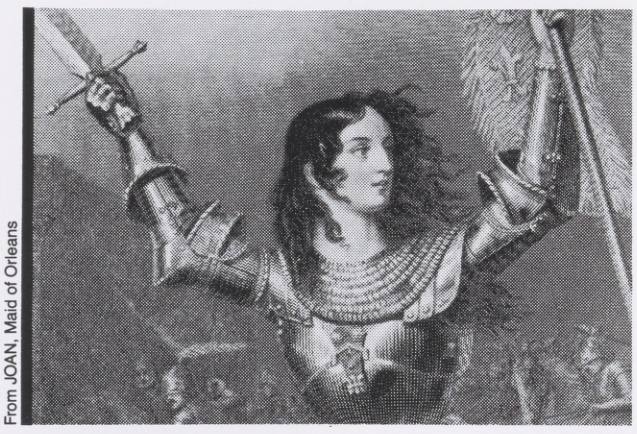
Was Joan of Arc a Mystic or an Epileptic?

The angelic visions and messianic voices that commanded Joan of Arc to drive the English from 15th century France may have been symptoms of epilepsy, according to a Berkeley writer and a UC San Francisco neurologist.

Neurologist Lydia Bayne says that the visions and voices that Joan described to a clerical court, which condemned her to death for heresy in 1431, conforms with seizures typical to a form of epilepsy called complex partial seizures. Bayne based her conclusions on evidence uncovered by writer Elizabeth Foote-Smith.

"When you look at the story closely," says Bayne, "that of a young woman with stereotyped spells starting in early adolescence, with no evidence of aberrant behavior between spells, and spells consisting of a dream-like state, visions of angels and voices with a messianic message—what you see is quite typical of complex partial seizures."

A rare form of the ailment, called reflex epilepsy, may account for why Joan sometimes experienced voices and visions immediately following the ringing of church bells, an event which occurred several times daily in medieval France. Stimuli such as flickering lights or music—and in one documented case,

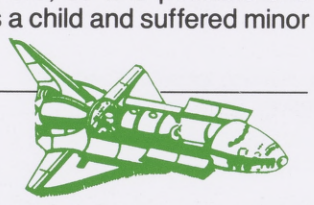


From JOAN, Maid of Orleans

church bells—can trigger reflex epileptic seizures, according to Bayne.

Bayne suggests that the source of Joan's epilepsy may have been bovine tuberculosis, which can be transmitted from cows to humans. A common disease of the Middle Ages, bovine tuberculosis causes small tuberculomas, or calcified lesions, in the brain. Joan's father was a cowherd, so it is possible she contracted the disease as a child and suffered minor brain damage.

Countdown for UCSF's Astronaut



UC San Francisco cell biologist Millie Hughes-Fulford will become the first practicing scientist to work as a space shuttle crew member when she joins a shuttle flight scheduled for this August.

Hughes-Fulford was one of three people chosen among 60 applicants to train at NASA headquarters in Houston for one of two flights focusing on life sciences. She is the first civilian woman designated a payload specialist, and her flight will be the first in which a life sciences research laboratory is stored inside the shuttle's cargo bay.

David Powers

Astronaut Hughes-Fulford

The mission, set for August 27, is scheduled to last eight days. Hughes-Fulford and a fellow crew member, a cardiologist, will study the effects of space flight on animals and people. The two astronauts will study themselves for the human research portion by examining certain physiologic changes induced by the flight, including bone loss, motion sickness, hormonal and immune system variations, and heart deconditioning.

Hughes-Fulford's flight is the culmination of a six-year effort that began when Claude Arnaud, then chief of endocrinology at the UCSF-affiliated Veterans Administration Medical Center, asked Hughes-Fulford to serve as a possible shuttle crew member. Arnaud was one of the investigators whose experiments were to be included on the life-sciences flights. Each investigator was invited to nominate two candidates for crew membership.

Hughes-Fulford and her colleagues at VAMC recently developed a fully automated cell-culture system capable of operating in zero gravity. This system offers the potential for in-flight studies of bone cells and other tissues.

Young Students Get Big Look at Small Things

Fourth-grade students in San Francisco are taking a "hands-on" approach to learning science thanks to a new program that puts inexpensive microscopes and other scientific equipment in the hands of students.

The program, called "Magnifiers and Microscopes," is an eight-week, 15-lesson program administered by the San Francisco Unified School District in cooperation with UCSF's Science and Health Education Partnership (SEP) program.

The classroom program involves a kit, consisting of microscopes, magnifiers and other equipment, and a lesson plan which challenge students to discover the natural world through science. SEP mass produced the kits and distributed them to San Francisco elementary schools. Jan Tuomi, a school district science coordinator, taught teachers how to use the kit and lesson plan.

Meanwhile, winners of SEP's annual science contest for middle and high school students have just been announced. This year's contest was the biggest ever with some 400 students developing science lessons for their classmates or younger students. Abraham Lincoln High School took first place for "The Wonder of the Nervous System," while Presidio Middle School took first for "Electricity." Each school gets $1,000 to be split among the student winners, project teacher and the school.

Mikkel Aaland

Jan Tuomi (right) with Sanchez fourth-grader Erica Cabrales

In Brief

Don't Clench Your Fist When Blood is Drawn

Making a clenched fist during the drawing of blood can raise blood potassium levels, leading physicians to misinterpret temporarily high potassium levels as a sign of disease, UC San Francisco researchers discovered after testing a patient with puzzling swings in potassium levels.

Many clinics and hospitals ask patients to make a fist when drawing blood to make it easier to find the veins, which bulge under the pressure.

Burl R. Don and Morris Schambelan of SFGH have just completed a study of five healthy men which showed that clenching a fist during the drawing of blood correlated with elevated blood potassium levels. One possible explanation for this phenomenon is that contracting muscles release potassium, which could then enter the bloodstream.

Free Directory for the Visually Impaired

The latest version of a large-type directory of resources available to the visually impaired in the Bay Area now is available through the UCSF Department of Ophthalmology. To obtain a copy call 476-1921.

Diabetics Sought for Drug Trial

Diabetics are needed to participate in an experimental drug trial to treat retina deterioration and kidney damage, two of the most serious complications of diabetes. For more information, call the UC San Francisco Metabolic Research Unit at 476-1364.

Abortions Pose No Psychological Problems

Most women suffer no severe mental effects after undergoing a first-trimester legal abortion, an American Psychological Association panel has concluded.

"Although there may be sensations of regret, sadness or guilt, the weight of the evidence from scientific studies indicates that legal abortion of an unwanted pregnancy in the first trimester does not pose a psychological hazard for most women," says Nancy Adler, director of UC San Francisco's health psychology program. Adler was lead author of the panel report, which was based on a review of studies regarding psychological responses to abortion.

Study on Preventing Lung Cancer

Men aged 45 to 69 and at high risk for lung cancer are needed to participate in a long-term study on whether vitamin A and beta-carotene can help prevent lung cancer in male smokers exposed to high levels of asbestos. For more information, call the UC San Francisco Asbestos Cancer Prevention study at 821-5961.

More News for You

on the back page

What's happening

July/August 1990
A bimonthly calen
events at UC San

Special Events

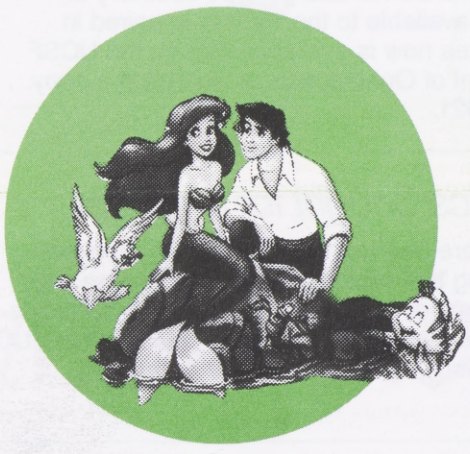
Sat., Aug. 11
UCSF Community Chorus. In conjunction with the San Francisco Choral Society, the Chorus performs the *Verdi Requiem.* Davies Symphony Hall, Van Ness & Grove. $8-$20. 8 p.m. Call 566-8096 for tickets.

Summer Programs for Children & Youth

Discovery Day Camp. Children 7-12 explore nature and science at exciting locations in the Bay Area. Mon.-Fri., 8 a.m.-5 p.m. in two-week sessions through Aug. 31. $225 general, $200 Millberry Union members. Call 476-1469.

Teen & Children's Recreation. Classes in jazz dance, aerobics, tae kwon do and tennis. Millberry Union Fitness Center, 500 Parnassus. Call 476-1115 for details.

Children's Summer Film Series. Fridays in Cole Hall, 513 Parnassus. Showtimes are 10:30 a.m., 1:30 p.m. & 6:30 p.m. Children 12 & under $2; students, seniors & Millberry Union members (with ID) $2.50; general $3. Grandparents go free when accompanied by grandchildren. For special rates for groups of 10 or more call 476-6761.



July 6
The Little Mermaid.

July 13
Peter Pan.

July 20
Sleeping Beauty.

July 27
All Dogs Go to Heaven.

Aug. 3
Cinderella.

Aug. 10
Babar the Movie.

Blood Donation

Tues., July 31
Special Mobile Blood Drive. Blood may be given in the Irwin Memorial Blood Bank Donor Mobile outside Millberry Union, 500 Parnassus, 11 a.m.-5:30 p.m.

You don't have to wait for a blood drive to give blood. You may donate any weekday 10 a.m.-8 p.m. or Saturday 10 a.m.-3 p.m. at UCSF's **Blood Donor Center,** Rm. 131 Long Hospital, 505 Parnassus. For information & appointments call 476-6989.

Recreation & Fitness

Add sizzle to your summer! Millberry Union Fitness Center offers over 100 classes including aerobics, weight management, body building, yoga, dance, volleyball, tennis, golf, kung fu, massage, nutrition & more. Millberry Union Fitness Center, 500 Parnassus. For further information and a free brochure call 476-1115.

Breast Cancer Screening

Women can have low-cost mammograms—x-rays to screen for breast cancer—from a mobile van that travels to convenient Bay Area locations. The procedure takes approximately 20 minutes and costs $50. Your physician's approval is required. For appointments call 990-0459 or 476-2193 between 9 a.m. and 3:30 p.m.

July 2, 3, 5 & 6
Embarcadero. On Drumm St. between Sacramento & Clay Sts.

July 9
Civic Center. On McAllister St. between Larkin & Polk Sts.

July 11-13
Westlake Shopping Center. Daly City, on Park Plaza Dr. near Safeway.

July 16-20
Lawrence Livermore National Laboratories. Call Susan Gooler at 422-7459 for appointment.

July 23-27
Palo Alto Senior Center. Call Ellen Dietrick at 327-2811 for appointment.

July 30-Aug. 3
Marina Green. Parking lot near Goodwill shed & Fort Mason.

Aug. 6-10
Taraval St. Between 17th & 18th Aves.

Aug. 13-17
Embarcadero. On Drumm St. between Sacramento & Clay Sts.

Aug. 20
Los Altos Senior Center. Call Judy Sidebottom at 948-7483 for appointment.

Aug. 21
Little House Senior Center/Menlo Park. Call Maxine Beck at 326-2025 for appointment.

Aug. 22-23
Twin Pines Senior Center/Belmont. Call Debbie Yoder at 595-7444 for appointment.

Aug. 24
Diamond Heights. On Diamond Heights Blvd., adjacent to Safeway.

Aug. 27-31
Sunset District. On Irving St. between 25th & 26th Aves.

Personal Safety

Classes:

Tear Gas Certification. Laguna Honda School Conference Room. 1350 7th Ave. $20. Pre-registration required. Call Chris Yee at 476-5683 for schedule.

Groups:

Survivors Support Group. Looking at how sexual assault can affect day-to-day life. Facilitated by Deborah Rochelle-Williams. Sponsored by Rape Prevention Education Program. Twelve consecutive sessions, 5:30-7 p.m. Date to be announced. $5-$25. Call 476-5222 to register.

Presentations:

By appointment to groups in the community or at your workplace.

Crime Prevention. Presented by UCSF Police Department. Call 476-5683.

Personal Safety. Presented by UCSF Rape Prevention Education Program. Call 476-5222.

Campus Tours

All tours are free and take place at 1 p.m. on Tuesdays, July 3, 10, 17, 24 & 31 and August 7, 14, 21 & 28. Meet in the lobby of Medical Sciences building, 513 Parnassus. For further information call 476-4394.

Art Exhibits

"Ladies Lunch"

"City Scenes."
Watercolors by James Gleeson. Through Aug. 7. On display at the Faculty/Alumni House, 745 Parnassus. 9 a.m.-5 p.m. Call 476-4723.

Hospitals Auxiliary Art Exhibit.
On display in the lobbies of Moffitt/Long Hospitals, 505 Parnassus, during July will be color photos, color photos of moms & babies, pastel oils & watercolors, Chinese brush paintings and framed watercolors. The August display will feature color photos, mixed media, framed reproductions of original pastels and oils, framed fiber art design and framed watercolors and pencil.

A portion of all proceeds benefits patients at the Medical Center at UCSF. To purchase or reserve work, visit the Auxiliary Office, Rm. 182, Moffitt Hospital, 505 Parnassus, 9 a.m.-4 p.m., or call 476-4906.

Women's Programs

Events & workshops sponsored by UCSF Women's Resource Center unless otherwise noted. For recorded program information call 476-0400. To pre-register call 476-5836.

Summer Women's Film Series:
The last four presentations in a series about images of women in American film. At noon in Toland Hall, 533 Parnassus, unless otherwise noted.

Tues., July 10
Two Lies (identity struggle of an Asian American woman) and **Hairpiece: A Film for Nappy-Headed People** (satire on the question of self image for black women). Rm. 303 Health Sciences West, enter through 513 Parnassus.

Tues., July 24
With a Vengeance: The Fight for Reproductive Freedom.

Thurs., Aug. 9
Positive Images: Portraits of Women with Disabilities.

Tues., Aug. 21
Lifetime Commitment: A Portrait of Karen Thompson (a dying lover transforms a closeted lesbian into a leading activist).

Events:

Tues., July 17
Waking Up to Rape. A film examining the experiences of three rape survivors. At noon in Toland Hall, 533 Parnassus.

Outdoors Unlimited

Outdoors Unlimited is a cooperative resource center for outdoor recreation and adventure, serving both the UCSF campus and the general public. It provides skills training, equipment rentals, trip planning information and a place to meet others with similar interests. To receive a quarterly listing of trips and clinics, send a self-addressed, stamped envelope (45¢) to Outdoors Unlimited, Box 0234A, UCSF, San Francisco, CA 94143. For more information call 476-2078.

Community Health Talks

A series of free lecture/discussions sponsored by Office of Public Service Programs held at UCSF Laurel Heights (LH), 3333 California St., or the Parnassus campus (P), Room 302 Health Sciences West (enter through 513 Parnassus) from 7-8:30 p.m. Free parking available. Call 476-3206 for further information.

Thurs., July 12
Folk Medicine. (LH)

Thurs., July 19
Poison Control for a Lifetime. (P)

Thurs., Aug. 2
Heart Attacks: Can You Recognize & Respond? (P)

Thurs., Aug. 9
Cocaine Exposed Babies: Medical & Psychological Effects. (LH)

Paths of Healing & Wholeness

All talks are free and held on Fridays at noon in Rm. 721, Nursing Bldg., enter through 521 Parnassus. Call Marie Lehrer at 476-3939.

July 6
Spiritual Past Life Therapy.

July 13
Psychic Healing from a Cross-Cultural Perspective.

July 20
Psycho-Spiritual Development.

July 27
How You Can Use Upset in Relationships to Strengthen Rather Than End Connection.

Aug. 3
The Unknown Healer within Us.

Aug. 10
Psychic Healing.

Aug. 17
Household Hazards.

Aug. 24
The Entree of Champions: A Creative Approach to Obstacles.

Aug. 31
Social Transformation through Shared Living Community.

Fog Fun Concerts

Free lunchtime entertainment at the Millberry Plaza Grill, 500 Parnassus. Sponsored by UCSF Arts & Lectures, EMPACT! and the Plaza Grill. Noon.

July 11
Swing Fever.

July 18
Patti Weiss Quartet.

July 25
Rhythm & Steel with Jeff Narrell.

Aug. 1
To be announced.

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Brown Bag Lectures

All lectures are free and held on Wednesdays at noon in Rm. 300 Health Sciences West, enter through 513 Parnassus. For further information call 476-4394.

July 11
A New Way of Thinking. Increase dynamic and cooperative thinking.

July 18
Chronic Muscle Pain: Fibrositis & Stress.

July 25
Highway Robbery: The Truth about Some of America's Auto Dealers.

Aug. 1
New Developments: Cosmetic Dentistry.

Aug. 8
Strategies for Optimal Aging.

Aug. 15
Food for Thought: How Diet Affects Our Mental Health.

Aug. 22
Healing Power of Humor.

Aug. 29
Fast Track to Success.

Senior Health Education Program

Free lectures by UCSF staff geared to senior citizens. Schedules are subject to change. Call 476-3206 to confirm events.

Mon., July 9
Pain Control. Downtown Senior Center, 481 O'Farrell St. 1 p.m.

Wed., July 11
Generic Drugs. Aquatic Park Senior Center, 890 Beach St. 1 p.m.

Fri., July 13
Music Therapy. Montefiore Senior Center, 655 Brotherhood Way. 1 p.m.

Mon., July 16
Urinary Tract Incontinence. Noriega Senior Services Center, 3601 Noriega St. 10:45 a.m.

Fri., Aug. 31
Helping Friends Who May Be Depressed. Richmond District YMCA, 360 18th Ave. 1:45 p.m.

CPR Training

125th

"Save A Heart" Program. CPR classes sponsored by UCSF CPR Center. Rm. 229, Nursing Bldg., enter through 521 Parnassus. Sat., July 7 & Aug. 8; Tues., July 31; Fri., Aug. 3. 9 a.m.-noon. $20. For information & registration, call 476-1817.

CPR Road Show. Traveling CPR instruction by volunteer instructors sponsored by the UCSF Center for Pre-Hospital Research & Training. For more information call Laura at 476-8502.

Volunteer Orientation

Program to acquaint new & prospective volunteers with opportunities available in the Medical Center at UCSF. Held in the East Dining Room of Moffitt Cafeteria, 505 Parnassus, on Tues., Aug. 21. For further information call 476-1196.

UCSF
University of California, San Francisco
News and Public Information Services
513 Parnassus Avenue
San Francisco, CA 94143-0462

A circulatory "short circuit" was slowly robbing him of energy and vitality.

A few extra hours.

That's what a highly specialized, nonsurgical procedure at UC San Francisco gave Dennis Bertolucci. A few extra, important hours—every day—for his busy life.

Dennis is a 31-year-old mechanical designer whose quiet demeanor belies his drive. He works at Chevron Research in Point Richmond during the day and attends art classes at the College of Marin at night. He also bicycles a few miles daily around his San Anselmo home. And on weekends he takes longer bike rides, hikes at Point Reyes, or helps friends with construction projects.

But a rare hereditary lung ailment—which struck at least five members of his family over four generations—slowed Dennis down. Strenuous activity easily winded him. And it triggered fatigue. He slept up to nine hours every night, but still would become sluggish and tired late in the day.

The problem? A circulatory "short circuit" in the lungs called Rendu-Osler-Weber disease. A malformed blood vessel diverted blood from a vein directly to an artery without first carrying the blood near the lung's capillaries. As Jeff Golden, Bertolucci's pulmonary specialist at UCSF, explained, this prevented the blood from absorbing oxygen. As a result, Dennis received about 15 percent less oxygen than full capacity.

Fifteen years ago, when doctors first confirmed the problem, Dennis refused what had been his relatives' only option—surgery. Surgery required cutting away significant amounts of healthy lung tissue along with the malformed blood vessel. But Dennis' case was relatively mild. So he lived with the debilitation.

But about two years ago, Dennis and his mother, Ruth—yet another Bertolucci with hereditary arteriovenous malformations, learned about Ernest Ring and his alternative to surgery. Ring is chief of interventional radiology at UCSF. Ring plugs up abnormal blood vessels through a procedure called therapeutic embolization. The procedure usually takes less than an hour and requires no general anesthetic.

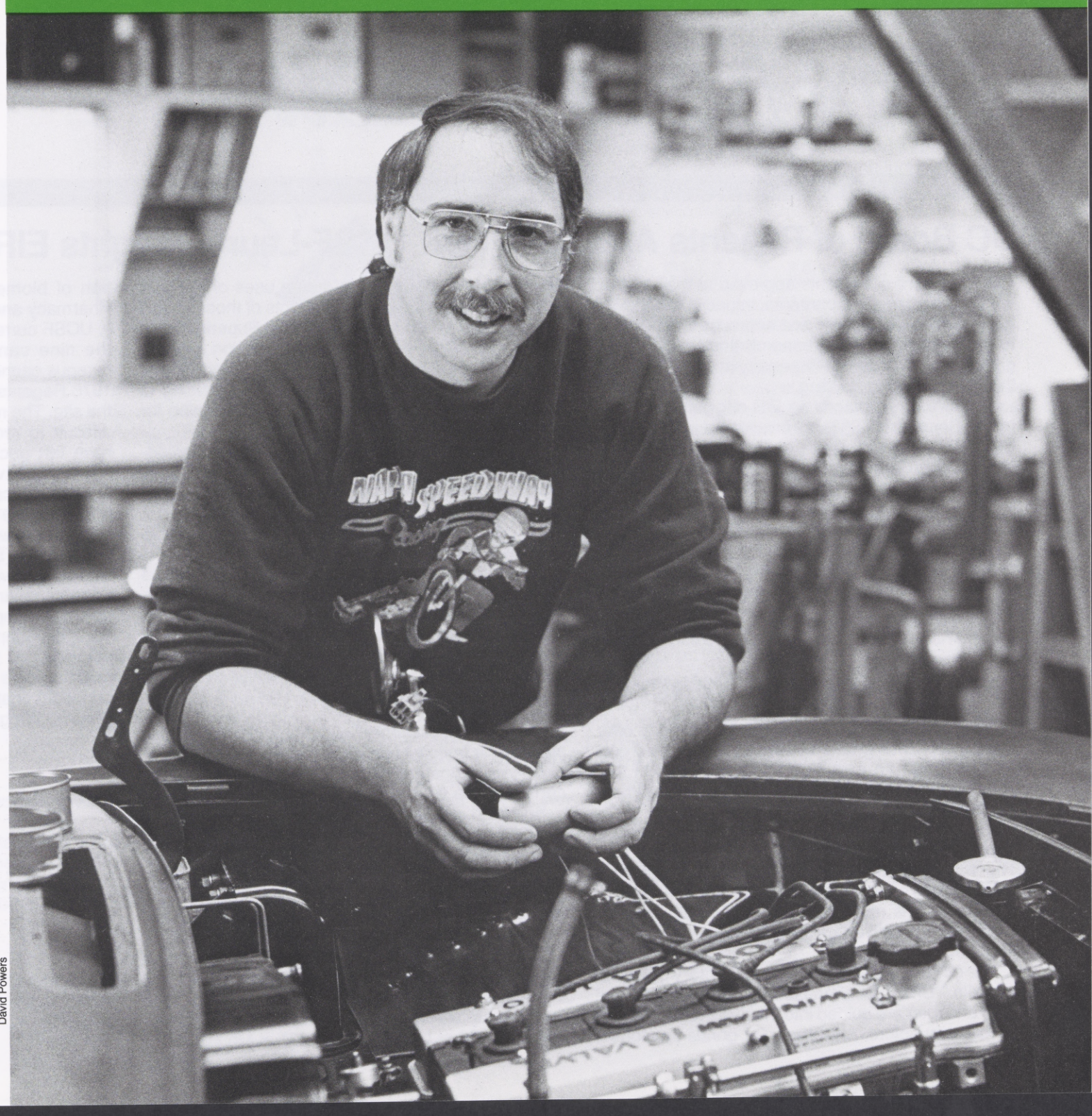
Ring starts with a small puncture in the patient's groin. From this opening, he threads a catheter through the blood vessel network until he reaches the lungs. Then, using a guide wire, he pushes tiny coils through the catheter and into the offending blood vessel. Afterward, blood coagulates around the coils, plugging the vessel.

Key to Ring's work is an X-ray fluoroscope. The fluoroscope projects an internal picture of the patient onto a television monitor, allowing Ring to see the catheter and coils inside the blood vessels.

In addition to arteriovenous malformations, which can occur in organs other than the lungs, Ring also plugs up hemorrhages, and even treats liver tumors by blocking their blood supply.

Dennis underwent therapeutic embolization last October; his mother, a few months before. Now, his bike rides and hikes are easy compared to previous efforts. He also works more productively, has more energy for school and sleeps less each night.

All of which makes Dennis feel more alive and vital than he has in years. —Marshall Krantz



David Powers

July/August 1990

To Our Neighbors

New Nonsurgical Gallstone Treatments

Joan of Arc: Divinely Inspired or Seized by Seizures?

UCSF's Astronaut Goes into Space this August

UCSF
University of California, San Francisco
513 Parnassus Avenue, San Francisco, CA 94143-0462

More News for You

UC Board of Regents Approves New UCSF-Laurel Heights EIR

The UC Board of Regents approved at their May 18 meeting the new Environmental Impact Report (EIR) for UCSF-Laurel Heights and approved UCSF's plan to move administrative, research and teaching programs of the Schools of Pharmacy and Medicine into the Laurel Heights building.

The new EIR replaces an EIR originally approved by the Regents in 1986, but invalidated in part by the California Supreme Court in 1988 after the Laurel Heights Improvement Association, Inc. filed a lawsuit challenging the document.

The Court agreed that the Regents had substantial evidence to conclude that research planned by the UCSF School of Pharmacy for the Laurel Heights campus would not have a significant impact on the environment. But the Court ordered UCSF to prepare a new EIR that adequately discussed alternatives to the project and "anticipated future uses of the new facility and the environmental effects of those uses."

UCSF now will submit the EIR to the Superior Court of San Francisco, which retains jurisdiction over the case. If the court concludes that the EIR is adequate, UCSF expects to begin remodeling the building at Laurel Heights by early next year in preparation for the eventual move.

"This was a brand new EIR," said Bruce W. Spaulding, vice chancellor, university advancement and planning. "We started over, and the new plan takes into account the approximately 150,000 square feet of space to be vacated by CalTrans and other tenants over the next five years."

As to anticipated future uses, no specific plans have been developed for the second half of the building, except to propose it be used for some combination of biomedical research from the Schools of Pharmacy and Medicine.

UCSF currently is the most densely populated of the nine campuses in the UC system, and the campus cannot expand on Parnassus because of a 1976 Regents resolution limiting potential growth on the site. The resulting space shortage makes it more difficult to recruit new faculty, and several faculty have left because of insufficient space. Other researchers have had to turn down funds for important research on cancer and AIDS, and for studies of ways to ameliorate the impact of toxic substances, because there was no room to locate the scientific staff, according to Spaulding.

"We feel we have done everything required and more to assure the safety and to minimize the environmental impacts of this project," said Spaulding. "Our environmental assessment at the Parnassus campus last year showed absolutely no adverse health effects to the community, and we feel equally confident that our activities at Laurel Heights will pose no danger to the neighborhood."

New Nonsurgical Treatments for Gallstones

UCSF has become the first Bay Area center to offer two experimental gallstone treatments that may give many patients an alternative to the discomfort and potential risks of gallbladder surgery under general anesthesia.

One new technique, gallbladder lithotripsy, uses shock waves to painlessly "blast" gallstones to bits. The wave generating machine is placed against a patient's skin and aimed at the stones. No incision or hospital stay is necessary. After lithotripsy, the patient is treated with drugs to dissolve remaining stone fragments.

The other new method employs a "rotary gallstone lithotrite." Under local anesthetic, a small straw-like tube and rotor are guided into the gallbladder through a needle puncture. After the rotor grinds up stones, fragments are suctioned out. The patient typically stays in the hospital only a day or two, and no stone-dissolving drugs are needed. UCSF is one of three centers in the world now offering this procedure.

Some 20 million Americans have gallstones, and 500,000 gallbladder operations are performed in the U.S. each year. Whether the new methods are appropriate for a particular person will depend on a number of factors, such as other health problems and the size and type of stones, says Roy Gordon, principal investigator in the lithotripsy and lithotrite programs.

The new techniques are offered jointly by the UCSF Medical Center and Mount Zion Hospital and Medical Center. Patients can be screened and seen for follow-up visits at either location. For information, call 476-3904 at UCSF or 885-7777 at Mount Zion.

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